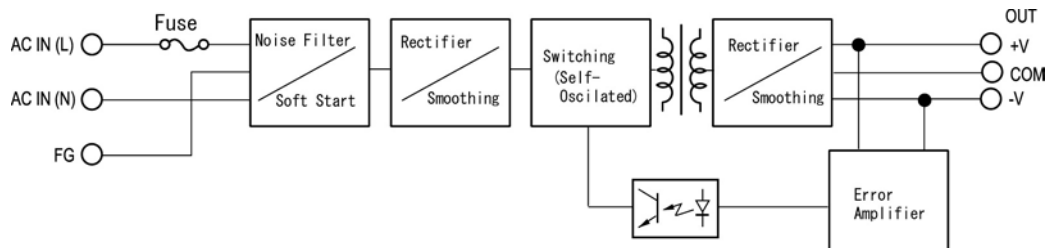


10 WATT AC-DC CONVERTER

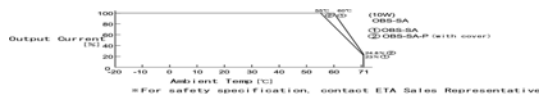
**OBS- SA/WA SERIES
SINGLE/ DUAL CHANNEL**

Specifications OBS**SA/WA 10WATTS/SINGLE/2 OUTPUT	Model							
	OBS3.3SA-U	OBS05SA-U	OBS12SA-U	OBS15SA-U	OBS24SA-U	OBS48SA-U	OBS22WA-U	OBS23WA-U
Input Voltage [V]	AC115V(DC130V)							
Input Current [A]	0.35						0.3	
Input Range [V]	AC85-132V(DC110-175V)							
Input Frequency	50/60Hz							
Input Frequency Range	47-440Hz							
Phase	single							
Inrush Current *1	18A(maximum) at AC100V							
Efficiency [%] (typical) *2	73	78	84	82	84	84	80	81

Block Diagram



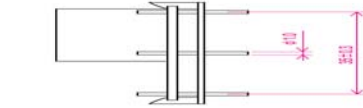
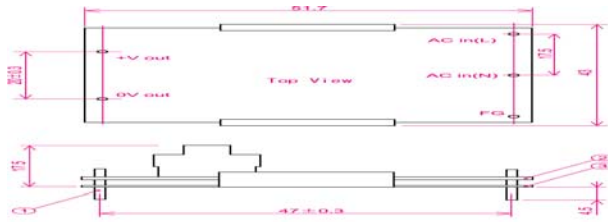
DERATING DIAGRAM



Derating Curve OBS-SA10W

Specifications OBS**SA/WA 10WATTS/SINGLE/2 OUTPUT	Model							
	OBS3.3SA-U	OBS05SA-U	OBS12SA-U	OBS15SA-U	OBS24SA-U	OBS48SA-U	OBS22WA-U	OBS23WA-U
Output Voltage [V]	3.3	5	12	15	24	48	±12	±15
Output Current [A]	2.0	2.0	0.9	0.7	0.45	0.24	0.045-0.45	0.035-0.35
Voltage Tolerance [V]	±0.07	±0.1	±0.24	±0.3	±0.48	±0.96	±0.24	±0.3
Ripple and Noise [mVp-p](maximum) *3	120						100	
Regulation								
a.Line Regulation [mV](maximum)	5	10	24	30	48	96	60	75
b.Load Regulation +/-[mV](maximum) *4	10	15	36	45	72	144	±1.6	±2
+/-[mV](maximum) *5							±480	±600
+/-[mV](maximum) *6							±60	±75
c.Temperature Coefficient *7	0.03%/°C							
d.Drift[mV](maximum) *8	30	40	75	90	135	255	75	90
e.Dynamic Load Regulation [mV](typical) *9	±200	±250	±360	±450	±720	±1500	±480	±600
f.Recovery Time *9	10mS(typical)						20mS(typical)	
Rise up time	100mS(maximum) at rated input/output							
Hold up time	20mS(minimum) at rated input/output							
Functions								
Overcurrent Protection	Foldback/Current Limiting with automatic recovery at discontinuous short circuit conditions							
Overvoltage Protection	Not available							
Environmental								
Operating Temperature	-20 to 71°C							
Operating Humidity	30-85%/RH(non-condensing)							
Storage Temperature								
Storage Humidity	20 to 90%/RH(non-condensing)							
Withstanding Voltage	Primary-Secondary AC2000V for 1minute							
	Primary-Frame Ground AC2000V for 1minute							
	Secondary-Frame Ground AC500V for 1minute							
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester							
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)							
Shock	294m/s ²							
Cooling	Convection							
Leakage Current (typical)	40uA for OBS**SA-U/70uA for OBS**WA-U at AC100V							
EMI(Electromagnetic Interference)	Built to meet FCC Part 15-B Class B							
	Built to meet VCCI Class A							
Safety	UL:UL1950							
	C-UL:CSA C22.2 No.950							
Weight (typical)	33g[unit with cover:36g]							
MTBF [H] *11	975,000							

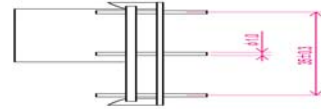
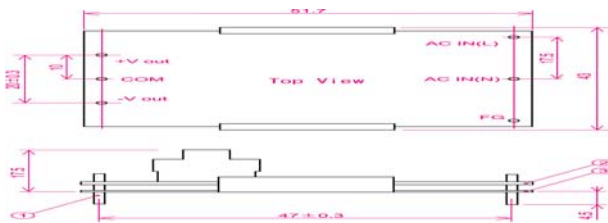
DIMENSION DIAGRAM OBS-SA



- ① 1.0 DIA PIN Material B&B 2700 1/2H
Copper Plating 1-3µm
Solder Plating 3-6µm
- ② Double-sided PCB FR4 t=1.0
- ③ Insulator UL94V2
*Tolerance ±0.5

Dimension Diagram OBS-SA

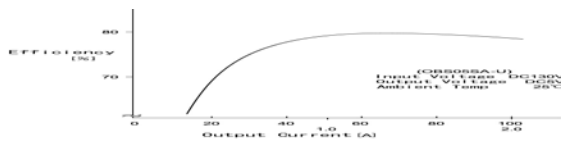
DIEMNSION DIAGRAM OBS-WA



- ① 1.0 DIA PIN Material B&B 2700 1/2H
Copper Plating 1-3µm
Solder Plating 3-6µm
- ② Double-sided PCB FR4 t=1.0
- ③ Insulator UL94V2
*Tolerance ±0.5

Dimension Diagram OBS-WA

EFFICIENCY CURVE



Efficiency Curve OBS05SA